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EXAMINER

SHAND, ROBERTA A

ART UNIT PAPER NUMBER

2665

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,531

Applicant(s)

VARADHAN ET AL.

Examiner

Roberta A. Shand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 7-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warriar (U.S. 6707809 B1) in view of Agraharan (U.S. 6407988 B1).
3. Regarding claim 1, Warriar teaches (fig. 3) a method creating a bootstrapping agent (col. 6, lines 43-44, creating an MBR, which works along with the home agent and has the IP address of the IP address, home and foreign agent addresses by which data is transmitted to the mobile host) that works cooperatively with a M-IP home agent to allocate a temporary home address to the host that powers up in a foreign network (Warriar teaches the mobile agent initiating a PPP connection with the foreign agent meaning that the mobile powers up in the foreign network and needs to register); using the M-IP protocol to contact the M-IP home agent and request the bootstrapping agent to allocate the temporary home address to the host (col. 6, lines 43-54); and using the temporary home address to create a temporary tunnel between a foreign agent associated with the host and the M-IP home agent, wherein the temporary tunnel is used to communicate configuration information including a permanent home address, thereby allowing the mobile host that powers up in a foreign network to connect to the internet (col. 6, line 62 – col. 7, line 6).
4. Warriar does not teach using a DHCP server.

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5. Agraharan teaches (fig. 1) DHCP servers (105-1, 105-2). It would have been obvious to one of ordinary skill in the art to adapt DHCP to Warriar's system, because in assigning temporary IP addresses, DHCP is effective in minimizing the number of addresses which the service provider needs to inventory.
6. Regarding claim 2, Warriar teaches (fig. 1) the foreign agent is co-located with the host.
7. Regarding claim 3, Warriar teaches (fig. 1) the foreign agent is located on a device that is external to the host and resides in the foreign network
8. Regarding claim 5, as for the private address taking the form 10*, this is a well known format of address in private network's and It would have been obvious to one of ordinary skill in the art to adapt this to Warriar and Agraharan's as it is in the art.
9. Regarding claim 7, Agraharan teaches (fig. 5) a DHCP client located on the host is used to generate messages requesting the configuration information from a DHCP server via the temporary tunnel.
10. Regarding claim 8, Agraharan as for the messages generated by the DHCP client are modified at the host to have a format consistent with a DHCP relay, it is inherent in Agraharan's system that messages generated by the DHCP client has a consistent format.

11. Regarding claim 9, Warriar teaches (fig. 3) a method, comprising: obtaining a temporary IP home address for the host powering up in a foreign network (Warriar teaches the mobile agent initiating a PPP connection with the foreign agent meaning that the mobile powers up in the foreign network and needs to register) without an IP home address from an IP address source accessible through a mobile IP home agent (col. 6, lines 43-54); establishing a transient tunnel between the mobile IP home agent and a mobile foreign agent associated with the mobile host while the foreign network, using the temporary IP home address (col. 6, line 62 – col. 7, line 6); acquiring via the transient tunnel, configuration parameters including a permanent IP home address in the home network of the host; replacing the transient tunnel with a new tunnel between the mobile IP home agent and the mobile IP foreign agent using the permanent IP home address, therefore allowing the mobile without an IP home address to connect to the Internet when powered up in a foreign network (Warriar teaches that once the mobile has powered up in the foreign network, after registration of the mobile host, a tunnel is created to transmit data to the mobile host in the foreign network between the foreign agent and the home agent, see fig. 3).
12. Warriar does not teach using a DHCP server.
13. Agraharan teaches (fig. 1) DHCP servers (105-1, 105-2). It would have been obvious to one of ordinary skill in the art to adapt DHCP to Warriar's system, because in assigning temporary IP addresses, DHCP is effective in minimizing the number of addresses which the service provider needs to inventory.

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14. Regarding claim 10, Warrier teaches a method for enabling configuration of a portable host device that powers up in a foreign network to communicate using the internet, comprising: communicating a temporary home address to the host that powers up in a foreign network from bootstrapping agent operating cooperatively with a mobile IP home agent that serves the host device when it operates in the foreign network (Warrier teaches the mobile agent initiating a PPP connection with the foreign agent meaning that the mobile powers up in the foreign network and needs to register); establishing a transient bi-directional link between the host and the mobile IP home agent using the M-IP protocol and the temporary home address (col. 6, lines 33 – 62); and obtaining a permanent address via the transient bi-directional communication link (the mobile registers with the home agent), wherein the permanent address use thereafter to configure the host to communicate with the internet (Warrier teaches data being sent to the mobile via the home agent, because of the permanent address being associated with the home agent, and the home agent sending the data to the mobile host via the foreign agent see fig. 3)).

15. Warrier does not teach using a DHCP server.

16. Agraharan teaches (fig. 1) DHCP servers (105-1, 105-2). It would have been obvious to one of ordinary skill in the art to adapt DHCP to Warrier's system, because in assigning temporary IP addresses, DHCP is effective in minimizing the number of addresses which the service provider needs to inventory.

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17. Regarding claim 11, Warriar teaches (fig. 3) additional configuration parameters are provided to the host via the transient bi-directional communication link. (Warriar teaches (setting up the lifetime with the home agent which is additional configuration parameters)

18. Regarding claim 12, Warriar teaches (fig. 3) a method for configuring a mobile host when it powers up in a foreign network, comprising: using a M-IP protocol in the host as the signaling mechanism for reaching the home network (col. 6, lines 31-63) and dynamically allocating a temporary home address (Warriar teaches that the mobile getting an address associated with the Foreign agent as the temporary address); allocating a permanent home address and other configuration state for the host (Warriar teaches a registration process where the permanent address is assign to the mobile).

19. Warriar does not teach using a DHCP server.

20. Agraharan teaches (fig. 1) DHCP servers (105-1, 105-2). It would have been obvious to one of ordinary skill in the art to adapt DHCP to Warriar's system, because in assigning temporary IP addresses, DHCP is effective in minimizing the number of addresses which the service provider needs to inventory.

21. Regarding claim 14, Warriar teaches (fig. 3) a method for configuring the mobile host when it powers up in a foreign network without an IP home agent address, comprising: obtaining a temporary IP home address for the host from an IP address source accessible through the home server (col. 6, lines 43-54); establishing a transient tunnel between the mobile IP home server

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and a mobile foreign server using the temporary IP home address (col. 6, lines 63 – col. 7, line 6); acquiring via the transient tunnel, permanent configuration parameters including a permanent IP home address in the region served by the home server (Warrier teaches that the MBR created by the home agent has the IP address of the mobile); replacing the transient tunnel with a new tunnel between the home server and the foreign server using the permanent IP home address.

22 Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warrier (U.S. 6707809 B1) in view Agraharan (U.S. 6407988 B1) and further in view of Malki (U.S. 2001/0046223 A1).

23 As mentioned above Warrier and Agraharan teach all of the limitations of claim 1.

24 Warrier and Agraharan do not explicitly teach a pool of addresses.

25 However, Malki teaches (abstract) Ipv6, which entails a pool of addresses to be used for the mobile when it roams or powers up in a foreign network. It would have been obvious to one of ordinary skill in the art to adapt to Warrier and Agraharan's system Malki's IPv6, as Ipv6 is well known in the art.

26 Claim 13 is ejected under 35 U.S.C. 103(a) as being unpatentable over Bergenwall (U.S. 6567664 B1) in view of Agraharan (U.S. 6407988 B1).

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27 Regarding claim 13, Bergenwall teaches (fig. 3) a method, comprising: setting up a temporary IP tunnel via the M-IP protocol to connect the mobile host that powers up in a foreign network to its home network (col. 3, line 30 – col. 7, line 8); using an IP broadcasting (col. 2, lines 57-62) protocol over the temporary IP tunnel so that the host can discover an addressing server in its home network.

28 Bergenwall does not teach using a DHCP server.

29 Agraharan teaches (fig. 1) DHCP servers (105-1, 105-2). It would have been obvious to one of ordinary skill in the art to adapt DHCP to Warrier's system, because in assigning temporary IP addresses, DHCP is effective in minimizing the number of addresses which the service provider needs to inventory.

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Conclusion

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Shand whose telephone number is 571-272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.

31. Any attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberta A Shand
Examiner
Art Unit 2665



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